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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,086	03/30/2004	Akitaka Makino	648.43120CC2	3010

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EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,086

Applicant(s)

MAKINO ET AL.

Examiner

Karla Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0304.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: In the "Brief Description of the Drawings" a brief description is not included for each of the drawings. Drawings 1a-b, 2a-b and 3a-d must be described individually, not as collective "Figure 1", collective "Figure 2" and collective "Figure 3".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 7-8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,312,525 to Bright et al.

4. Bright et al. disclose a vacuum processing apparatus in Figures 1 and 2 comprising: a transfer chamber (22) inside of which an object wafer to be processed is transferred; two processing chambers (14) disposed outside of the transfer chamber in a detachable manner (column 15, rows 46-64), the inside of each processing chamber being decompressed so as to process the wafer being placed therein using a plasma generated from a process gas supplied thereto (column 1, rows 41-46 and column 2, rows 29-31); and two supply means (46, in Figures 2 and 3; 106, 108 and 110 in Figure 5; also see column 6, rows 27-33 and column 7, row 47-column 8, row 3) for supplying the processing gas to the two processing chambers, respectively, the two supply means being disposed vertically outside of the transfer chamber (below) and between the two processing chambers (the area below the transfer chamber is also corresponds to a space between the processing chambers, which are situated around the circumference of the transfer chamber).

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5. With respect to claim 8, the apparatus further comprises a gas supply path (at interface panels Figure 7, 44; column 6, 27-30 and 47-59) that connects each of the two supply means to each of the two processing chambers.

6. With respect to claim 11, Bright et al. disclose a vacuum processing apparatus in Figures 1 and 2 comprising: a transfer chamber (22) inside of which an object wafer to be processed is transferred; two processing chambers (14) disposed outside of the transfer chamber in a detachable manner (column 15, rows 46-64), the inside of each processing chamber being decompressed so as to process the wafer being placed therein using a plasma generated from a process gas supplied thereto (column 1, rows 41-46 and column 2, rows 29-31); a substantially rectangular storage chamber (Figures 7 and 8, 78; column 6, rows 60-64) disposed below the two processing chamber and housing a power source that supplies power to the processing chambers; and two supply means (46, in Figures 2 and 3; 106, 108 and 110 in Figure 5; also see column 6, rows 27-33 and column 7, row 47-column 8, row 3) for supplying the processing gas to the two processing chambers, respectively, the two supply means being disposed vertically outside of the transfer chamber (below) between the two processing chambers (the area below the transfer chamber is also corresponds to a space between the processing chambers, which are situated around the circumference of the transfer chamber) and above the storage chamber (a portion of the supply means is connected to connectors 64, 66 and 68, which are above the storage chamber (see Figure 7)).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. as applied to claims 7-8 and 11 above.

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9. Bright et al. disclose the invention substantially as claimed and as described above.
10. However, Bright et al. fail to teach one of the two supply means is disposed higher than the processing chamber to which it supplies gas, and the other is disposed lower than the processing chamber to which it supplies gas.
11. The courts have ruled that mere rearrangement of parts which does not modify the operation of a device is prima facie obvious. In re Japikse, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950). In re Kuhle, 526 F.2d 553, 188 USPQ 7 (CCPA 1975). In the instant case, one of ordinary skill in the art would recognize that by vertically optimizing the space of the processing apparatus by placing supply means at positions both above and below the processing chambers a reduced and improved footprint could be achieved.
12. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided gas supply means at positions above and below the processing chambers in Bright et al. in order to achieve a reduced and improved footprint.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USP 5,076,205 to Vowles et al. discloses a cluster tool providing flexibility in the nature of processing in a multi processing facility. USP Pub 2003/0155076 A1 to Murakami teaches providing a cluster tool with reduced footprint by stacking structure of the apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
April 28, 2005